REMARKS/ARGUMENTS

Applicants have received and carefully reviewed the Office Action of the Examiner mailed September 2, 2005. Claims 1-9, 12-32, 34-49 and 82-106 remain pending. Claims 10-11, 33 and 50-81 have been canceled without prejudice, and claims 82-106 have been added. No new matter has been added. Reconsideration and reexamination are respectfully requested.

Election/Restriction

In paragraph 2 of the Office Action, the Examiner restricted the claims into four (4) groups, namely: Group I which corresponds to claims 1-49; Group II which corresponds to claims 50-54 and 58; Group III which corresponds to claims 55-57; and Group IV which corresponds to claims 59-81. In paragraph 13 of the Office Action, the Examiner notes that during a telephone conversation with the undersigned on August 25, 2005, a provisional election was made without traverse to prosecute the invention of Group I, claims 1-49. This election is hereby affirmed, and claims 50-81 have been canceled without prejudice as being drawn to non-elected inventions.

Information Disclosure Statement

In paragraph 15 of the Office Action, the Examiner acknowledged that the Information Disclosure Statements (IDS) submitted on July 12, 2004, April 25, 2005, April 27, 2005 and July 19, 2005 have been considered. Applicants note that another IDS was filed on September 26, 2005, which was after the mailing date of the present Office Action. *Applicants respectfully request that the Examiner consider the IDS filed on September 26, 2005, and return an initialed copy of the PTO-1449 in due course.*

Specification

In paragraph 16 of the Office Action, the Examiner objected to the disclosure because keypad 142 on page 23, line 12 is not shown in Figure 7C. In response, the specification has

been amended to read "keypad 142 (see Figure 6)" at page 23, line 12. No new matter has been added.

Rejection under 35 U.S.C. § 102(e)

In paragraph 18 of the Office Action, the Examiner rejected claims 1-36 and 41-49 under 35 U.S.C. § 102(e) as being anticipated by Alles (2005/0116055 A1). In response, claim 1 has been amended to recite:

> 1. (Currently Amended) A method of programming a multiple-day schedule on a controller for a home, building and/or related grounds, wherein the controller is equipped with a touch screen user interface that displays a number of different screens, the schedule having at least one schedule parameter, comprising the steps of:
>
> selecting two or more days of the week using a first region of a first screen of the touch screen user interface ~~to modify the schedule~~;
>
> individually changing the at least one schedule parameter for one or more periods during the selected days using a second region of the first screen of the touch screen user interface; and
>
> saving the changes to the at least one schedule parameter for the selected days.

As can be seen, claim 1 recites that the controller is equipped with a touch screen user interface that displays a number of different screens. Claim 1 also recites the steps of: selecting two or more days of the week using a first region of a first screen of the touch screen user interface, and individually changing the at least one schedule parameter for one or more periods during the selected days using a second region of the first screen of the touch screen user interface. In contrast, Alles appears to use a first screen (e.g. Figure 20, ref number 2020) to select the days of the week, and second screen (e.g. Figure 21, ref number 2110) to change schedule parameters. More specifically, Alles state:

> FIG. 20 illustrates the primary display screen 2000 of the PDA interface program. The display screen is approximately 2".times.2" with a resolution of 160 by 160 pixels. The temperature schedule 2001 displays a 24-hour day beginning at 12:00 am (ref. no. 2002) and ending at Midnight (ref. no. 2003). A number of specific times 2004 can be specified to divide the day into periods. Specific times are not required, so there may be only one period stretching from 12:00 am to Midnight.

> There can be as many as seven specific times 2004 so there can be as many as eight periods. A "comfort-climate" 2005 for each period is displayed on the line between the start time and the end time for that comfort-climate. The down pointing arrow indicates a popup menu is associated with each comfort-climate. Selecting any comfort-climate causes the "Comfort-Climate" popup menu 2100 to appear, shown in FIG. 21 and described in the following. Each comfort-climate display also displays a temperature range 2008. Selecting a temperature range causes the "Edit Comfort-Climate" popup menu 2110 to appear, shown in FIG. 21 and described in the following.

(Emphasis Added) (Alles, paragraph [162], see also, Figures 21 and 22). As can readily be seen, Alles appears to use the first screen shown at 2020 in Figure 20 to select the days, and a second pop-up screen, such as shown at 2110 in Figure 21, to change schedule parameters. As such, Alles do not appear to teach, disclose or suggest selecting two or more days of the week using a first region of a first screen of the touch screen user interface, and individually changing the at least one schedule parameter for one or more periods during-the selected days using a second region of the first screen of the touch screen user interface, as recited in claim 1. In fact, it would appear that Alles actually teaches away from claim 1. For these reasons, as well as other reasons, claim 1 is believed to be clearly patentable over Alles. For similar and other reasons, dependent claims 2-9, 13-17 82-84, 87 and 98 are also believed to be clearly patentable over Alles.

Turning now to claim 18, which recites:

> 18. (Currently Amended) A method of programming a multiple-day schedule on a HVAC thermostat device that is adapted to be mounted to a wall, the HVAC thermostat device including a temperature sensor and ~~controller for a home, building and/or related grounds, wherein the controller is equipped with~~ a menu-driven user interface, the schedule having at least one schedule parameter, comprising the steps of:
>
> initiating an editing mode ~~within the controller~~ using the menu-driven user interface of the HVAC thermostat;
>
> selecting two or more days of the week using the menu-driven user interface of the HVAC thermostat to modify the schedule;
>
> changing the at least one schedule parameter for one or more periods during the selected days; and

exiting the editing mode using the menu-driven user interface of the HVAC thermostat.

As can be seen, claim 18 recites a method of programming a multiple-day schedule on a HVAC thermostat device that is adapted to be mounted to a wall, wherein the HVAC thermostat device including a temperature sensor and a menu-driven user interface. Claim 18 further recites initiating an editing mode using the menu-driven user interface of the HVAC thermostat, selecting two or more days of the week using the menu-driven user interface of the HVAC thermostat to modify the schedule, and changing the at least one schedule parameter for one or more periods during the selected days.

In contrast, and under the "Overview of the System" heading, Alles state:

[0066] The control processor 60 is connected to the existing HVAC controller 22 by the existing HVAC controller connection 74. The control processor 60 interface circuit uses the same signals as the existing thermostat 21 to control the HVAC equipment. The existing thermostat connection 73 is also connected to the control processor 60 interface circuit that includes a manual two position switch. In the first switch position, the HVAC controller 22 is connected to the control processor 60. In the second switch position, the HVAC controller is connected to the existing thermostat 21. The existing thermostat 21 is retained as a backup temperature control system.

[0067] The control processor 60 controls the HVAC equipment and the airflow to each room according to the temperature reported for each room and according to an independent temperature schedule for each room. The temperature schedules specify a heat-when-below-temperature and a cool-when-above-temperature for each minute of a 24-hour day. A different temperature schedule can be specified for each day for each room. These temperature schedules are specified by the occupants using an interface program operating on a standard PDA (personal data assistant) 80. PDAs are available from several manufacturers such as Palm. The interface program provides graphical screens and popup menus that simplify the specification of the temperature schedules and the assignment of schedules to rooms for the days of the week and for other special dates. The PDA 80 includes a standard infrared communications interface called IrDA that is used to communicate with the control processor 60. The IrDA link 81 is mounted in the most convenient air vent 18, behind its air grill 31. The IrDA link 81 has an infrared transmitter and receiver mounted so that it can communicate with the PDA 80 using infrared signals though the air grill. The IrDA link 81 is connected

> to the control processor 60 by the link connection 82 that is pulled through the air duct with the air tube to that air vent. After changes are made to the temperature schedules, the PDA 80 is pointed toward the IrDA link 81 and the standard IrDA protocol is used to exchange information between the PDA 80 and the control processor 60.
>
> [0068] The IrDA link 81 also has an audio alarm and light that are controlled by the control processor 60. The control processor can sound the alarm and flash the light to get the attention of the house occupants if the zone control system needs maintenance. The PDA 80 is used to communicate with the control processor 60 to determine specific maintenance needs.

(Emphasis Added) (Alles, paragraphs [0066]-[0068]). From this, it does not appear that Alles discloses or suggests initiating an editing mode using a menu-driven user interface of an HVAC thermostat that is adapted to be mounted to a wall and includes a temperature sensor and a menu-driven user interface. Nor does Alles appear to disclose or suggest the steps of selecting two or more days of the week using the menu-driven user interface of the HVAC thermostat to modify the schedule, or changing the at least one schedule parameter for one or more periods during the selected days, as recited in claim 18.

Instead, Alles appears to retain the existing thermostat 21 as a backup temperature control system, and use a separate, non-HVAC thermostat device (e.g. a PDA device) to specify the temperature schedules. Alles also appears to provide a wireless thermometer 70 in each room of the house, where all thermometers 70 transmit on a shared radio frequency a digital message that includes a unique thermometer identification number, the temperature, and command data. (see, e.g. Alles, paragraph [0065]). Notably, Alles does not appear to teach or suggest configuring these thermometers to include a menu-drive interface, and in particular a menu-driven interface that allows the user to select two or more days of the week using the menu-driven user interface, or change a schedule parameter for one or more periods during the selected days, as recited in claim 18. In view of the foregoing, Alles would appear to, if anything, teach away from claim 18. For these reasons, as well as other reasons, claim 18 is believed to be clearly patentable over Alles. For similar and other reasons, dependent claims 19-32, 88 and 99-101 are also believed to be clearly patentable over Alles.

Now turning to claim 34, which recites:

> 34. (Currently Amended) A programmable controller for use in controlling at least one system of a home, building and/or related grounds, the programmable controller comprising:
> an environmental sensor for measuring an environmental condition in or around the vicinity of the programmable controller;
> a user interface that includes a display;
> a memory unit for storing a set of schedule parameters, at least one of the scheduled parameters relating to the environmental condition measured by the environmental sensor; and
> a processor electrically coupled to the user interface, the memory unit and the environmental sensor, and configured to run a scheduling routine, said scheduling routine including an editing mode for programming a schedule in the memory unit using the user interface;
> wherein the editing mode allows the user to use the user interface of the programmable controller to concurrently select two or more days of the week to modify the schedule, and ~~then~~ to edit the schedule parameters for the selected days ~~via the user interface~~.

As can be seen, claim 34 recites a programmable controller for use in controlling at least one system of a home, building and/or related grounds. Claim 34 further recites that the programmable controller includes: an environmental sensor for measuring an environmental condition in or around the vicinity of the programmable controller; a user interface that includes a display; a memory unit for storing a set of schedule parameters, at least one of the scheduled parameters relating to the environmental condition measured by the environmental sensor; and a processor electrically coupled to the user interface, the memory unit and the environmental sensor. Claim 34 also recites that the processor is configured to run a scheduling routine, where said scheduling routine includes an editing mode for programming a schedule in the memory unit using the user interface, wherein the editing mode allows the user to use the user interface of the programmable controller to concurrently select two or more days of the week to modify the schedule, and to edit the schedule parameters for the selected days. As detailed above with respect to claim 18, Alles appears to retain the existing thermostat 21 as a backup temperature control system, and use a separate, non-HVAC thermostat device (e.g. a PDA device) to specify the temperature schedules. It is not believed that a PDA device includes an environmental sensor

for measuring an environmental condition in or around the vicinity of the programmable controller. Thus, for these reasons, as well as other reasons, claim 34 is believed to be clearly patentable over Alles. For similar and other reasons, dependent claims 35-48, 85, 89 and 102-103 are also believed to be clearly patentable over Alles.

Turning now to claim 49, which recites:

> 49. (Currently Amended) A programmable controller for use in controlling at least one system of a home, building and/or related grounds, and is adapted to be hardwired to the at least one system of the home, building and/or related grounds, the programmable controller comprising:
>
> a user interface that includes a display;
>
> a memory unit for storing a set of schedule parameters; and
>
> a processor electrically coupled to the user interface and the memory unit, and configured to run a scheduling routine, said scheduling routine including an editing mode for programming a schedule in the memory unit using the user interface;
>
> wherein the editing mode allows the user to use the user interface of the programmable controller to concurrently select one or more periods of the schedule for two or more selected days of the week, and ~~then~~ to edit the schedule parameters for the selected periods and days ~~via the user interface~~.

As can be seen, claim 49 recites a programmable controller that is adapted to be hardwired to the at least one system of the home, building and/or related grounds. Claim 49 further recites that the programmable controller includes a user interface that includes a display, a memory unit for storing a set of schedule parameters, and a processor electrically coupled to the user interface and the memory unit, and configured to run a scheduling routine, wherein the scheduling routine including an editing mode for programming a schedule in the memory unit using the user interface. Claim 49 also recites that the editing mode allows the user to use the user interface of the programmable controller to concurrently select one or more periods of the schedule for two or more selected days of the week, and to edit the schedule parameters for the selected periods and days. Alles does not appear to teach or suggest this combination. In view thereof, claim 49 is believed to be clearly patentable over Alles. For similar and other reasons, dependent claims 86 and 90 are also believed to be clearly patentable over Alles.

Now turning to newly presented claim 91, which recites:

91. (New) A method of programming at least part of a multiple-day schedule on a controller for a home, building and/or related grounds, wherein the controller is equipped with a user interface that includes a display panel and one or more keys that are separate from the display panel, the schedule having at least one schedule parameter, comprising the steps of:

selecting two or more days of the week using one or more of the keys;

changing the at least one schedule parameter for one or more periods during the selected days using one or more of the keys; and

saving the changes to the at least one schedule parameter for the selected days.

As can be seen, new claim 91 recites a method of programming at least part of a multiple-day schedule on a controller for a home, building and/or related grounds. Claim 91 recites that the controller is equipped with a user interface that includes a display panel and one or more keys that are separate from the display panel. Claim 91 also recites the steps of: selecting two or more days of the week using one or more of the keys, changing the at least one schedule parameter for one or more periods during the selected days using one or more of the keys; and saving the changes to the at least one schedule parameter for the selected days.

Notably, Alles appears to suggest using a touch screen device (e.g. a PDA), with a number of touch activated menus and the like to set schedule parameters. As such, Alles does not appear to teach or suggest the invention recited in claim 91. For these and other reasons, claim 91 is believed to be clearly patentable over Alles. For similar and other reasons, dependent claims 92-93 are also believed to be clearly patentable over Alles.

Turning now to newly presented claim 94, which recites:

94. (New) A method of programming a multiple-day schedule on a controller for a home, building and/or related grounds, wherein the controller is equipped with a user interface having a display, the schedule having at least one schedule parameter, comprising the steps of:

displaying a number of day indicators, each at fixed locations on the display, and each corresponding to a day of the week;

selecting two or more days of the week;

displaying a day selection indicator separate from and adjacent to each of the day indicators that correspond to the selected days of the week;

changing the at least one schedule parameter for one or more periods of the selected days of the week; and

saving the changes to the at least one schedule parameter for the selected days.

As can be seen, new claim 94 recites a method of programming a multiple-day schedule on a controller for a home, building and/or related grounds. Claim 94 also recites the steps of: displaying a number of day indicators, each at fixed locations on the display, and each corresponding to a day of the week; selecting two or more days of the week; displaying a day selection indicator separate from and adjacent to each of the day indicators that correspond to the selected days of the week; changing the at least one schedule parameter for one or more periods of the selected days of the week; and saving the changes to the at least one schedule parameter for the selected days.

In Alles, day selections appear to be indicated by an inverted display that shows white areas as black and black areas as white (e.g. its display is inverted) (see, for example, Alles [00161]). This is clearly not "displaying a day selection indicator separate from and adjacent to each of the day indicators that correspond to the selected days of the week", as recited in claim 94. For these and other reasons, new claim 94 is believed to be clearly patentable over Alles. For similar reasons, as well as other reasons, dependent claims 95-96 are also believed to be clearly patentable over Alles.

In addition to the foregoing, dependent claim 95 recites:

> 95. (New) The method of claim 94 further comprising the steps of:
> displaying the at least one schedule parameters at a fixed location on the display; and
> during the changing step, displaying the changed at least one schedule parameter at the corresponding fixed location on the display.

Alles does not appear to display the at least one schedule parameters at a fixed location on the display, or display the changed at least one schedule parameter at the corresponding fixed location on the display during the changing step. In Alles, the schedule parameters appear to be displayed on the display screen 2020, at 2008. However, and as noted above, Alles appear to provide a pop-up menu, such as pop-up menu 2110, to change the schedule parameters, and then the changed schedule parameters appear to be displayed at a different location. For these

additional reasons, claim 95 is believed to be clearly patentable over Alles.

In addition to the foregoing, dependent claim 96 recites:

> 96. (New) The method of claim 95 wherein during the changing step, displaying the day indicators, the day selection indicators and the changed at least one schedule parameter on the display.

Alles does not appear to display the day indicators, the day selection indicators and the changed at least one schedule parameter on the display during the changing step. As noted above, the day indicators appear to be provided on screen 2020, and a pop-up menu, such as pop-up menu 2110, appears to be used to change the schedule parameters. The pop-up menu 2110 of Alles does not appear to include any day indicators or day selection indicators. For these additional reasons, claim 96 is believed to be clearly patentable over

Now turning to newly presented claim 97, which recites:

> 97. (New) A method of programming a multiple-day schedule on a controller for a home, building and/or related grounds, wherein the controller is equipped with a user interface having a display, the schedule having at least one schedule parameter, comprising the steps of:
> selecting two or more days of the week;
> displaying two or more day selection indicators for indicating which of the days of the week have been selected;
> changing the at least one schedule parameter;
> during the changing step, displaying the changed at least one schedule parameter and the day selection indicators on the display; and
> saving the changes to the at least one schedule parameter for the selected days.

As can be seen, claim 97 recites the steps of: selecting two or more days of the week; displaying two or more day selection indicators for indicating which of the days of the week have been selected; changing the at least one schedule parameter; during the changing step, displaying the changed at least one schedule parameter and the day selection indicators on the display; and saving the changes to the at least one schedule parameter for the selected days. For similar reasons to those given above with respect to claim 96, as well as other reasons, new claim 97 is also believed to be clearly patentable over Alles.

Now turning to newly presented claim 104, which recites:

104. (New) A method of programming a multiple-day schedule on a controller for a home, building and/or related grounds, wherein the controller is equipped with a user interface having a display, the schedule having at least one schedule parameter, comprising the steps of:

initiating an editing mode within the controller via the user interface;

providing a visual indication on the display that indicates to a user of the controller that more than one day of the week may be selected;

selecting two or more days of the week;

changing the at least one schedule parameter for one or more periods during the selected days of the week; and

saving the changes to the at least one schedule parameter for the selected days.

Nothing in Alles appears to teach or suggest many of these steps including providing a visual indication on the display that indicates to a user of the controller that more than one day of the week may be selected, as recited in claim 104. For these and other reasons, new claim 104 is believed to be clearly patentable over Alles. For similar and other reasons, dependent claims 105-106 are also believed to be clearly patentable over Alles.

Rejection under 35 U.S.C. § 103(a)

In paragraph 19 of the Office Action, the Examiner rejected claims 37-40 under 35 U.S.C. 103(a) as being unpatentable over Alles (2005/0116055 A1) in view of Sotak et al. (2005/0108091 A1). For similar reasons given above, as well as other reasons, dependent claims 37-40 are believed to be clearly patentable over Alles in view of Sotak et al.

In view of the foregoing, all pending claims 1-9, 12-32, 34-49 and 82-106 are believed to be in condition for allowance. Reconsideration and reexamination are respectfully requested. If a telephone interview would be of assistance, please contact the undersigned attorney at 612-359-9348.

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Respectfully Submitted,

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